

# Safety Data Sheet

## Avert Dry Flowable Formula 1

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### 1. Identification

#### Product identifier used on the label

## Avert Dry Flowable Formula 1

#### Recommended use of the chemical and restriction on use

Recommended use\*: biocide

Unsuitable for use: Uses other than recommended

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

#### Details of the supplier of the safety data sheet

##### Company:

BASF Agricultural Solutions Canada Inc.  
510, 28 Quarry Park Boulevard SE,  
Calgary, AB, T2C 5P9  
CANADA

Telephone: +1 (403) 523-3000

#### Emergency telephone number

##### 24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: (800) 454-COPE (2673)

#### Other means of identification

PCP # 28403

Synonyms: Abamectin B1

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### 2. Hazards Identification

#### According to Hazardous Products Regulations (HPR) (SOR/2015-17)

#### Classification of the product

No need for classification according to GHS criteria for this product.

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### Label elements

The product does not require a hazard warning label in accordance with GHS criteria.

### Hazards not otherwise classified

#### Labeling of special preparations (GHS):

This product is not combustible in the form in which it is shipped by the manufacturer, but may form a combustible dust through downstream activities (e.g. grinding, pulverizing) that reduce its particle size.

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## 3. Composition / Information on Ingredients

### According to Hazardous Products Regulations (HPR) (SOR/2015-17)

#### Abamectin

CAS Number: 71751-41-2  
Content (W/W): 0.054 %  
Synonym: Avermectin B1

#### Silica

CAS Number: 112945-52-5  
Content (W/W): 0.3 - 1.0%  
Synonym: Silica amorphous, fumed, cryst.-free; Fumed silica, crystalline-free, Fumed synthetic amorphous silica, Pyrogenic colloidal silica

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## 4. First-Aid Measures

### Description of first aid measures

#### General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product.

Remove contaminated clothing.

#### If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary.

Keep patient calm, remove to fresh air.

#### If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

#### If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

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Wash affected eyes for at least 15 minutes under running water with eyelids held open.

### **If swallowed:**

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Do not induce vomiting unless told to by a poison control center or doctor. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

### **Most important symptoms and effects, both acute and delayed**

Symptoms: (Further) symptoms and / or effects are not known so far

### **Indication of any immediate medical attention and special treatment needed**

#### Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

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## **5. Fire-Fighting Measures**

Suitable extinguishing media:  
water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:  
carbon dioxide

### **Special hazards arising from the substance or mixture**

Hazards during fire-fighting:  
carbon monoxide, carbon dioxide,  
If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire.

### **Advice for fire-fighters**

Protective equipment for fire-fighting:  
Wear self-contained breathing apparatus and chemical-protective clothing.

### **Further information:**

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways. Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

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## **6. Accidental release measures**

### Further accidental release measures:

Avoid dispersal of dust in the air (e.g. by clearing dusty surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

### **Personal precautions, protective equipment and emergency procedures**

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Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

### Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water. A spill of or in excess of the reportable quantity requires notification to state, local and national emergency authorities. This product is not regulated by CERCLA ('Superfund').

### Methods and material for containment and cleaning up

Dike spillage. Sweep/shovel up. Avoid raising dust. Use wet cleaning methods when applicable. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal. Nonsparking tools should be used.

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## 7. Handling and Storage

### Precautions for safe handling

Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. No special measures necessary if stored and handled correctly.

Protection against fire and explosion:

Avoid dust formation. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Dust can form an explosive mixture with air.

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme heat. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition. Avoid dust formation. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling.

### Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Further information on storage conditions: Protect against moisture. Keep away from heat. Protect from direct sunlight.

Protect from temperatures above: 20 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

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## 8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

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### Components with occupational exposure limits

Silica	OSHA Z3:	TWA value 0.8 mg/m <sup>3</sup> ; The exposure limit is calculated from the equation, $80\text{mg/m}^3 / (\% \text{SiO}_2)$ , using a value of 100% SiO <sub>2</sub> . Lower percentages of SiO <sub>2</sub> will yield higher exposure limits.
	OSHA Z3:	TWA value 20 millions of particles per cubic foot of air ;
	ACGIH, US:	TWA value 10 mg/m <sup>3</sup> Inhalable particles ;
	ACGIH, US:	TWA value 3 mg/m <sup>3</sup> Respirable particles ;

### **Advice on system design:**

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

### **Personal protective equipment**

#### **Respiratory protection:**

Wear respiratory protection if ventilation is inadequate. Breathing protection if breathable aerosols/dust are formed.

#### **Hand protection:**

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

#### **Eye protection:**

Safety glasses with side-shields. Wear face shield or tightly fitting safety goggles (chemical goggles) if splashing hazard exists.

#### **Body protection:**

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

#### **General safety and hygiene measures:**

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

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## 9. Physical and Chemical Properties

Form:	solid
Odour:	mild, of yeast
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	brown

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pH value:	approx. 4 - 6 ( 1 %(m), 20 °C)	
Melting point:	The product has not been tested.	
Boiling point:	The product has not been tested.	
Flash point:	not applicable, the product is a solid	
Flammability:	not highly flammable	(Directive 84/449/EEC, A.10)
Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Bulk density:	approx. 619 kg/m <sup>3</sup> ( 23 °C)	
Vapour density:	Apparent density after tamping not applicable	
Self-ignition temperature:	Based on its structural properties the product is not classified as self-igniting.	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Viscosity, dynamic:	not applicable, the product is a solid	
Solubility in water:	insoluble	
Evaporation rate:	not applicable	

## 10. Stability and Reactivity

### Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

### Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

### Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

### Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures. This product may form an explosive mixture if: 1. the dust is suspended in the atmosphere as a dust cloud AND 2. the concentration of the dust is above the lower explosion limit (LEL) AND 3. the limiting oxygen concentration (LOC) is exceeded.

### Incompatible materials

strong acids, strong bases, strong oxidizing agents

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### Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

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## 11. Toxicological information

### Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

### Acute Toxicity/Effects

#### Acute toxicity

Assessment of acute toxicity: Relatively nontoxic after single ingestion. Slightly toxic after short-term skin contact.

#### Oral

Type of value: LD50

Species: rat (male/female)

Value: > 5,000 mg/kg

#### Inhalation

Type of value: LC50

Species: rat

Value: > 5.0 mg/l (calculated)

The product has not been tested. The statement has been derived from the properties of the individual components.

Type of value: ATE

Value: > 5.0000 mg/l

Determined for dust

#### Dermal

Type of value: LD50

Species: rabbit (male/female)

Value: > 2,000 mg/kg

No mortality was observed.

#### Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

The product has not been tested. The statement has been derived from the properties of the individual components.

#### Irritation / corrosion

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Assessment of irritating effects: Not irritating to the skin. Not irritating to the eyes.

### Skin

Species: rabbit

Result: non-irritant

Method: Primary skin irritation test

### Eye

Species: rabbit

Result: non-irritant

Method: Primary eye irritation test

### Sensitization

Assessment of sensitization: The product has not been tested. The statement has been derived from the properties of the individual components. There is no evidence of a skin-sensitizing potential.

*Information on: Abamectin*

*Guinea pig maximization test*

*Species: guinea pig*

*Result: Non-sensitizing.*

*Method: OECD Guideline 406*

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## **Chronic Toxicity/Effects**

### Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: Abamectin*

*Assessment of repeated dose toxicity: Repeated inhalation exposure to small quantities may affect certain organs.*

*Repeated oral exposure to small quantities may affect certain organs.*

*Information on: Silica*

*Assessment of repeated dose toxicity: Repeated inhalative uptake of particles/dust reaching the alveoli may cause damage to the lungs.*

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### Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

### Carcinogenicity

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

### Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

### Teratogenicity

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Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: Abamectin*

*Assessment of teratogenicity: Indications of possible developmental toxicity/teratogenicity were seen in animal studies.*

*Causes developmental effects in animals at high, maternally toxic doses.*

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## 12. Ecological Information

### Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Very toxic (acute effect) to fish. Very toxic (acute effect) to aquatic invertebrates. Acutely toxic for aquatic plants.

Toxicity to fish

*Information on: Abamectin*

*LC50 (96 h) 0.0036 mg/l, Oncorhynchus mykiss*

Aquatic invertebrates

*Information on: Abamectin*

*EC50 (48 h) 0.00034 mg/l, Daphnia magna*

*EC50 (96 h) 0.000022 mg/l, Americamysis bahia*

Aquatic plants

*Information on: Abamectin*

*EC50 (72 h) > 0.00159 mg/l, Pseudokirchneriella subcapitata*

Chronic toxicity to fish

*Information on: Abamectin*

*No observed effect concentration (28 d) 0.00052 mg/l, Oncorhynchus mykiss*

Chronic toxicity to aquatic invertebrates

*Information on: Abamectin*

*No observed effect concentration (28 d) 0,0000035 mg/l, Mysidopsis bahia*

### Persistence and degradability

Assessment biodegradation and elimination (H2O)

The product has not been tested. The statement has been derived from the properties of the individual components.

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### Bioaccumulative potential

#### Assessment bioaccumulation potential

The product has not been tested. The statement has been derived from the properties of the individual components.

#### Bioaccumulation potential

*Information on: Abamectin*

*The product was found to be slightly bioavailable. The ecological data given are those of the active ingredient.*

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### Mobility in soil

#### Assessment transport between environmental compartments

The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: Abamectin*

*Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.*

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## 13. Disposal considerations

### **Waste disposal of substance:**

Must be sent to a suitable incineration plant, observing local regulations.

### **Container disposal:**

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

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## 14. Transport Information

### **Land transport**

TDG

Not classified as a dangerous good under transport regulations

### **Sea transport**

IMDG

Hazard class: 9

Packing group: III

ID number: UN 3077

Hazard label: 9, EHSM

Marine pollutant: YES

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(contains ABAMECTIN)

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### Air transport

IATA/ICAO

Hazard class: 9

Packing group: III

ID number: UN 3077

Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(contains ABAMECTIN)

### Further information

Exempt from regulation when transported by road or rail, in accordance with TDG Regulations 1.45.1. This exemption provides that this product does not require dangerous goods shipping documentation or safety marks when transported on land by road or rail.

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## 15. Regulatory Information

### Federal Regulations

#### Registration status:

Crop Protection DSL, CA released / exempt

#### NFPA Hazard codes:

Health: 1 Fire: 2 Reactivity: 1 Special:

### Labeling requirements under Pest Control Products Act

Read the label, authorized under the Pest Control Products Act, prior to using or handling the pest control product.

This chemical is a pest control product regulated by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. The following is the hazard information required on the pest control product label:

CAUTION:

Eye irritant.

KEEP OUT OF REACH OF CHILDREN.

HARMFUL IF SWALLOWED.

HARMFUL IF INHALED.

HARMFUL IF ABSORBED THROUGH SKIN.

Do not breathe dust.

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There are Canada-specific environmental requirements for handling, use, and disposal of this pest control product that are indicated on the label.

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## 16. Other Information

### SDS Prepared by:

BASF Agricultural Solutions Canada NA Product Regulations

SDS Prepared on: 2023/03/18

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We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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END OF DATA SHEET